

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Raymond C. Kurzweil	Art Unit :	2626
Serial No. :	10/730,485	Examiner :	Douglas Godbold
Filed :	December 8, 2003	Conf. No. :	2555
Title :	USE OF AVATAR WITH EVENT PROCESSING		

**Mail Stop Appeal Brief - Patents**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

APPEAL BRIEF ON BEHALF OF RAYMOND KURZWEIL

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**(1) Real Party in Interest**

The real party in interest in the above application is the assignee, Kurzweil AINetworks, Inc.

**(2) Related Appeals and Interferences**

Appellant is not aware of any appeals or interferences related to the above-identified patent application.

**(3) Status of Claims**

This is an appeal from the decision of the Primary Examiner in an Office Action dated **September 16, 2009** finally rejecting claims 1, 2, 5-16, 19-29 and 32-45, all of the claims in the application. The claims have been twice rejected. Claims 3, 4, 17, 18, 30, and 31 were canceled. Appellant filed a Notice of Appeal on **March 16, 2010**.

Claims 1, 2, 5-16, 19-29 and 32-45 are the subject of this appeal.

**(4) Status of Amendments**

Appellant filed a Reply to the Final Office Action. The Examiner did not enter the amendments in the Reply to the Final Office Action because they presented additional claims without cancelling a corresponding number of finally rejected claims. Applicant did make one other minor amendment to claim 15 changing comprises to comprising. This amendment does not affect patentability and thus Appellant elected to proceed with an Appeal. Therefore, the claims in the Appendix reflect the state of those claims that was prior to the final action.

**(5) Summary of Claimed Subject Matter**

**Claim 1**

Appellant's claim 1 is directed to a computer implemented method of conducting commerce, using one or more computers. ***"Referring to FIG. 1, a network 10 includes a user system 12 linked to a group of globally connected computers, i. e., the Internet 20."***<sup>1</sup>

Inventive features of Appellant's claim 1 include receiving transaction requests as text inputs. ***"In particular, the text can relate to an event e.g., a transaction that the user desires to conduct with the web server 22 through assistance by the avatar."***<sup>2</sup>

Inventive features of Appellant's claim 1 also include using one or more computers executing natural language processing to analyze the text inputs to build a conversation based on the transaction requests. ***"The processing stage 104 is a user interaction process that uses a conversational engine in conjunction with natural language processing (NLP) techniques to develop and build conversations between the user and the avatar."***<sup>3</sup>

Inventive features of Appellant's claim 1 also include conducting transactions based on the text inputs. ***"In addition, the content may be used to produce information to used in conducting transactions with the web server 22 or other systems that are accessed through the web server 22."***<sup>4</sup>

Inventive features of Appellant's claim 1 also include generating in the one or more computers voice-synthesized responses in accordance with the transactions through an avatar. ***"The facial modeling stage 106 combines the response and the conversational attributes to a face and voice of the avatar. The avatar is a photo-realistic, life-like virtual person."***<sup>5</sup>

Inventive features of Appellant's claim 1 also include tracking the transactions by storing the transactions in a database. ***"A program would add 134 'information on order' to the database i.e., that someone asked about a specific product."***<sup>6</sup> ***"...in addition the program***

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<sup>1</sup> Specification, page 3, lines 21-23

<sup>2</sup> Id., page 6, lines 8-10

<sup>3</sup> Id., page 5, lines 1-4

<sup>4</sup> Id., page 4, lines 14-17

<sup>5</sup> Id., page 5, lines 15-17

<sup>6</sup> Id., page 7, lines 27-29

***tracks 138 the interaction with the user and stores that interaction in the same or a different database.”***<sup>7</sup>

Inventive features of Appellant's claim 1 also include generating additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database, including information regarding the transactions. ***“The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive useful market data. Thus, the program retrieves information from the database and sends it to the user...”***<sup>8</sup>

Inventive features of Appellant's claim 1 also include receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses. ***“The thought navigation process converts the transactions and any questions that the user may pose to the web server to concepts, and presents the user with further information related to the concepts. The further information is presented on the GUI 16 in a format so the user may click on a hyperlink listing the related information and be directed to that related information. The avatar answers the questions and verbally presents the related information in a life-like manner.”***<sup>9</sup> ***“Follow-up messages with the user can be generated and analyzed statistically 136.”***<sup>10</sup> ***“Thus, the program retrieves information from the database and sends it to the user, but in addition the program tracks 138 the interaction with the user and stores that interaction in the same or a different database.”***<sup>11</sup>

Inventive features of Appellant's claim 1 also include analyzing in the one or more computers the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information. ***“Follow-up messages with the user can be generated and analyzed statistically 136.”***<sup>12</sup> ***“For example, the actions can be marketing related. The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive***

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<sup>7</sup> Id., page 8, lines 11-13

<sup>8</sup> Id., page 7, lines 27-29

<sup>9</sup> Id., page 7, lines 3-11

<sup>10</sup> Id., page 7, lines 29-30

<sup>11</sup> Id., page 8, lines 10-13

<sup>12</sup> Id., page 7, lines 29-30

*useful market data.”*<sup>13</sup> *“Thus, the tracked transaction can be subsequently used for either specific marketing to that person or can be analyzed statistically to produce information used in market research.”*<sup>14</sup>

#### Claim 15

Appellant's claim 15 is directed to a computer program product, residing on a computer readable medium, for conducting commerce, comprising computer instructions. *“Referring to FIG. 1, a network 10 includes a user system 12 linked to a group of globally connected computers, i. e., the Internet 20.”*<sup>15</sup>

Inventive features of Appellant's claim 15 include instructions to receive transaction requests as text inputs. *“In particular, the text can relate to an event e.g., a transaction that the user desires to conduct with the web server 22 through assistance by the avatar.”*<sup>16</sup>

Inventive features of Appellant's claim 15 also include instructions to analyze the text inputs using natural language processing to build conversations with the user based on the transaction requests. *“The processing stage 104 is a user interaction process that uses a conversational engine in conjunction with natural language processing (NLP) techniques to develop and build conversations between the user and the avatar.”*<sup>17</sup>

Inventive features of Appellant's claim 15 also include instructions to conduct transactions based on the text inputs. *In addition, the content may be used to produce information to used in conducting transactions with the web server 22 or other systems that are accessed through the web server 22.”*<sup>18</sup>

Inventive features of Appellant's claim 15 also include instructions to generate voice-synthesized responses in accordance with the transactions through an avatar. *“The facial modeling stage 106 combines the response and the conversational attributes to a face and voice of the avatar. The avatar is a photo-realistic, life-like virtual person.”*<sup>19</sup>

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<sup>13</sup> Id., page 8, lines 6-10

<sup>14</sup> Id., page 8, lines 14-16

<sup>15</sup> Specification, page 3, lines 21-23

<sup>16</sup> Id., page 6, lines 8-10

<sup>17</sup> Id., page 5, lines 1-4

<sup>18</sup> Id., page 4, lines 14-17

<sup>19</sup> Id., page 5, lines 15-17

Inventive features of Appellant's claim 15 also include instructions to track the transactions by storing the transactions in a database. ***"A program would add 134 'information on order' to the database i.e., that someone asked about a specific product."***<sup>20</sup> ***"...in addition the program tracks 138 the interaction with the user and stores that interaction in the same or a different database."***<sup>21</sup>

Inventive features of Appellant's claim 15 also include instructions to generate additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database, including information regarding the transactions. ***"The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive useful market data. Thus, the program retrieves information from the database and sends it to the user..."***<sup>22</sup>

Inventive features of Appellant's claim 15 also include instructions for receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses. ***"The thought navigation process converts the transactions and any questions that the user may pose to the web server to concepts, and presents the user with further information related to the concepts. The further information is presented on the GUI 16 in a format so the user may click on a hyperlink listing the related information and be directed to that related information. The avatar answers the questions and verbally presents the related information in a life-like manner."***<sup>23</sup> ***"Follow-up messages with the user can be generated and analyzed statistically 136."***<sup>24</sup> ***"Thus, the program retrieves information from the database and sends it to the user, but in addition the program tracks 138 the interaction with the user and stores that interaction in the same or a different database."***<sup>25</sup>

Inventive features of Appellant's claim 15 also include instructions to analyze the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information. ***"Follow-up messages with the user can be***

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<sup>20</sup> Id., page 7, lines 27-29

<sup>21</sup> Id., page 8, lines 11-13

<sup>22</sup> Id., page 7, lines 27-29

<sup>23</sup> Id., page 7, lines 3-11

<sup>24</sup> Id., page 7, lines 29-30

<sup>25</sup> Id., page 8, lines 10-13

*generated and analyzed statistically 136.”<sup>26</sup> “For example, the actions can be marketing related. The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive useful market data.”<sup>27</sup> “Thus, the tracked transaction can be subsequently used for either specific marketing to that person or can be analyzed statistically to produce information used in market research.”<sup>28</sup>*

#### Claim 28

Appellant's claim 28 is directed to a system for conducting commerce comprising a server computer. *“Referring to FIG. 1, a network 10 includes a user system 12 linked to a group of globally connected computers, i. e., the Internet 20.”<sup>29</sup>*

Inventive features of Appellant's claim 28 include receiving transaction requests as text inputs. *“In particular, the text can relate to an event e.g., a transaction that the user desires to conduct with the web server 22 through assistance by the avatar.”<sup>30</sup>*

Inventive features of Appellant's claim 28 also include analyzing the text inputs using natural language processing to build conversations based on the transaction requests. *“The processing stage 104 is a user interaction process that uses a conversational engine in conjunction with natural language processing (NLP) techniques to develop and build conversations between the user and the avatar.”<sup>31</sup>*

Inventive features of Appellant's claim 28 also include conducting the transactions based on the text inputs. *“In addition, the content may be used to produce information to used in conducting transactions with the web server 22 or other systems that are accessed through the web server 22.”<sup>32</sup>*

Inventive features of Appellant's claim 28 also include generating voice-synthesized responses in accordance with the transactions through an avatar. *“The facial modeling stage*

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<sup>26</sup> Id., page 7, lines 29-30

<sup>27</sup> Id., page 8, lines 6-10

<sup>28</sup> Id., page 8, lines 14-16

<sup>29</sup> Specification, page 3, lines 21-23

<sup>30</sup> Id., page 6, lines 8-10

<sup>31</sup> Id., page 5, lines 1-4

<sup>32</sup> Id., page 4, lines 14-17

***106 combines the response and the conversational attributes to a face and voice of the avatar. The avatar is a photo-realistic, life-like virtual person.”<sup>33</sup>***

Inventive features of Appellant's claim 28 also include tracking the transactions by storing the transactions in a database. ***“A program would add 134 ‘information on order’ to the database i.e., that someone asked about a specific product.”<sup>34</sup> “...in addition the program tracks 138 the interaction with the user and stores that interaction in the same or a different database.”<sup>35</sup>***

Inventive features of Appellant's claim 28 also include to generate additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database including information regarding the transactions. ***“The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive useful market data. Thus, the program retrieves information from the database and sends it to the user...”<sup>36</sup>***

Inventive features of Appellant's claim 28 also include receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses. ***“The thought navigation process converts the transactions and any questions that the user may pose to the web server to concepts, and presents the user with further information related to the concepts. The further information is presented on the GUI 16 in a format so the user may click on a hyperlink listing the related information and be directed to that related information. The avatar answers the questions and verbally presents the related information in a life-like manner.”<sup>37</sup> “Follow-up messages with the user can be generated and analyzed statistically 136.”<sup>38</sup> “Thus, the program retrieves information from the database and sends it to the user, but in addition the program tracks 138 the interaction with the user and stores that interaction in the same or a different database.”<sup>39</sup>***

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<sup>33</sup> Id., page 5, lines 15-17

<sup>34</sup> Id., page 7, lines 27-29

<sup>35</sup> Id., page 8, lines 11-13

<sup>36</sup> Id., page 7, lines 27-29

<sup>37</sup> Id., page 7, lines 3-11

<sup>38</sup> Id., page 7, lines 29-30

<sup>39</sup> Id., page 8, lines 10-13



Inventive features of Appellant's claim 28 also include analyzing, statistically, the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information. *"Follow-up messages with the user can be generated and analyzed statistically 136."*<sup>40</sup> *"For example, the actions can be marketing related. The program can follow up with messages to the user or other marketing data and can statistically analyze information stored in the database to derive useful market data."*<sup>41</sup> *"Thus, the tracked transaction can be subsequently used for either specific marketing to that person or can be analyzed statistically to produce information used in market research."*<sup>42</sup>

#### **(6) Grounds of Rejection to be Reviewed on Appeal**

(1) Claims 1, 2, 5-12, 14-16, 19-25, 27-29, 32-41 and 43-45 stand rejected under 35 U.S.C. 102(e), as being anticipated by Hayes-Roth (U.S. Patent Pub. No. 2003/0028498).

(2) Claims 13, 26 and 42 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hayes-Roth in view of Bennett (US Patent 7,050,977).

#### **(7) Argument**

##### Anticipation

"It is well settled that anticipation under 35 U.S.C. §102 requires the presence in a single reference of all of the elements of a claimed invention." *Ex parte Chopra*, 229 U.S.P.Q. 230, 231 (BPA&I 1985) and cases cited.

"Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983).

"This court has repeatedly stated that the defense of lack of novelty (i.e., 'anticipation') can only be established by a single prior art reference which discloses each and every element of the claimed invention." *Structural Rubber Prod. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984), citing five prior Federal Circuit decisions since 1983 including *Connell*.

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<sup>40</sup> Id., page 7, lines 29-30

<sup>41</sup> Id., page 8, lines 6-10

<sup>42</sup> Id., page 8, lines 14-16

In a later analogous case the Court of Appeals for the Federal Circuit again applied this rule in reversing a denial of a motion for judgment n.o.v. after a jury finding that claims were anticipated. *Jamesbury Corp. v. Litton Industrial Prod., Inc.*, 225 U.S.P.Q. 253 (Fed. Cir. 1985).

After quoting from *Connell*, "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim," 225 U.S.P.Q. at 256, the court observed that the patentee accomplished a constant tight contact in a ball valve by a lip on the seal or ring which interferes with the placement of the ball. The lip protruded into the area where the ball will be placed and was thus deflected after the ball was assembled into the valve. Because of this constant pressure, the patented valve was described as providing a particularly good seal when regulating a low pressure stream. The court quoted with approval from a 1967 Court of Claims decision adopting the opinion of then Commissioner and later Judge Donald E. Lane:

[T]he term "engaging the ball" recited in claims 7 and 8 means that the lip contacts the ball with sufficient force to provide a fluid tight seal \*\*\*\* The Saunders flange or lip only sealingly engages the ball 1 on the upstream side when the fluid pressure forces the lip against the ball and never sealingly engages the ball on the downstream side because there is no fluid pressure there to force the lip against the ball. The Saunders sealing ring provides a compression type of seal which depends upon the ball pressing into the material of the ring. \*\*\* The seal of Saunders depends primarily on the contact between the ball and the body of the sealing ring, and the flange or lip sealingly contacts the ball on the upstream side when the fluid pressure increases. 225 U.S.P.Q. at 258.

Relying on *Jamesbury*, the ITC said, "Anticipation requires looking at a reference, and comparing the disclosure of the reference with the claims of the patent in suit. A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." *In re Certain Floppy Disk Drives and Components Thereof*, 227 U.S.P.Q. 982, 985 (U.S. ITC 1985).

**(1) Claims 1, 2, 5-12, 14-16, 19-25, 27-29, 32-41  
and 43-45 are patentable over Hayes-Roth.**

*Claim 15*

For the purposes of this appeal only, claims 1, 2, 7-12, 14-16, 21-25, 27-29, 32-33 and 36-41 stand or fall together. Appellant's claim 15 is representative of this group of claims.

Hayes-Roth does not teach analyzing voice-synthesized, follow-up responses about transactions to produce market research information.

The examiner stated:

...Roth teaches...

**...analyzing in the one or more computers the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information (paragraph 0049, behavior is based on previous transactions and information assembled on the shopper. This is market research information.).**

Claim 15 calls for, among other things, to "analyze the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information." Hayes-Roth fails to disclose this feature of the claim. Paragraph 0049 of Hayes-Roth is reproduced below:

**As illustrated with the earlier types of services, the expert sales agent performs its learning, adaptation, personalization, and relationship-building services by instantiating, elaborating, or refining application-independent dialogue and behavior with application-specific information.**

Appellant contends that Hayes-Roth only describes the services of its expert sales agent. Hayes-Roth does not describe analyzing in the one or more computers the transactions, for example, voice-synthesized, follow-up responses about transactions to produce market research information. The examiner states that "**behavior is based on previous transactions and information assembled on the shopper. This is market research information.**" However, while the examiner appears to cite this passage of Hayes-Roth with regard to previous transactions, this passage says nothing about analyzing follow-up responses nor does any other passage in Hayes-Roth appear to

disclose or suggest “analyz[ing] ... the voice-synthesized, follow-up responses about the transactions.”

In making the rejection, the examiner has failed to meet the legal standard for anticipation. “Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim.” *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983). Appellant contends that the examiner has inappropriately rearranged the elements of the claim to match the disclosure of Hayes-Roth. In particular, the examiner has chosen to make a rejection based on the examiner’s own characterization of elements described in Hayes-Roth (“**behavior is based on previous transactions and information assembled on the shopper**”), and has not made the rejection based on the elements of the claimed invention arranged as in the claim (“analyze ... the voice-synthesized, follow-up responses about the transactions.”).

Accordingly, the examiner has failed to show that Hayes-Roth anticipates the elements of claim 15.

#### *Claim 19*

For the purposes of this appeal only, claims 5, 19, and 34 stand or fall together. Appellant’s claim 19 is representative of this group of claims.

Hayes-Roth does not teach one of the transactions is a request as to order status for an order being tracked in the database.

The examiner stated:

**Roth teaches the method of claim 1 wherein one of the transactions is a user request as to order status for an order being tracked in the database (0044 and 0048 discuss using the agent for customer service, including order status.).**

Claim 19 requires that “one of the transactions is a request as to order status for an order being tracked in the database.” Hayes-Roth does not disclose this feature. Paragraphs 0044 and 0048 of Hayes-Roth are reproduced below:

**[0044] The expert agent also provides the customer a variety of services typical of a human customer service representative. For example, the expert agent can provide immediate answers to the customer's questions. This may be accomplished by different methods, including but not limited to the following: providing direct answers to particular questions based on knowledge encoded in the agent's knowledge base; "pushing" information to the customer by navigating to particular site locations or retrieving**

**information from a database or other external knowledge sources. Again, each of these services combines application-independent methods (e.g., responding to certain types of questions by navigating to an appropriate location) with application-specific information (e.g., specification of the relationships between particular questions and locations).**

**[0048] In the sales/customer service example, the expert agent builds a continuing service relationship with the customer. The expert agent remembers what purchases the customer has made on a previous visit and follows up with questions like, "Has the blouse you ordered last week arrived yet?" Or, the expert agent combines its knowledge of customer preferences and earlier purchases to make suggestions like, "Designer-D has brought out a pair of your favorite pumps in a new lilac color. They would look great with that Designer-I dress you bought last April."**

Appellant contends that Hayes-Roth only describes the services of its expert agent and the ability of the expert agent to build a service relationship. Nothing in these passages describes or suggests "one of the transactions is a request as to order status for an order being tracked in the database." Contrary to the examiner's characterization ("0044 and 0048 discuss using the agent for customer service, including order status"), claim 19 does not simply call for "order status," but rather that "...one of the [received] transactions is a *request* as to order status..." Nothing in these passages of Hayes-Roth describes the expert agent processing a transaction that is a request for order status.

Accordingly, claim 19 is patentable over Hayes-Roth.

#### *Claim 20*

For the purposes of this appeal only, claims 6, 20, and 35 stand or fall together. Appellant's claim 20 is representative of this group of claims.

Hayes-Roth does not teach instructions to animate an avatar with a voice and facial movements corresponding to content found in a database.

The examiner stated:

**animating the avatar with a voice and facial movements corresponding to content found in the database (paragraph 0041 discusses speech output, paragraph 0500 discusses animation.).**

Appellant assumes that the examiner made a typographical error and intended to reference paragraph 0050.

Claim 20 calls for, among other things, instructions to “animate the avatar with a voice and facial movements corresponding to content found in the database.” Hayes-Roth does not disclose this feature. Paragraphs 0041 and 0050 of Hayes-Roth are reproduced below:

**[0041] The expert sales agent would communicate with the customer in natural language dialogue. This dialogue may be exchanged via various interface input/output (I/O) technologies, including but not limited to text, speech/voice/audio, and graphics/images modalities.**

**[0050] The customizable expert agents of the present invention, each with its distinctive personality, mood, manner of interaction, and other life-like qualities, such as normal variability, idiosyncrasies, and irregularities in behavior, also can offer humanized interactions. For example, a sales agent might really love high fashion and entertain a customer with her opinions about different designers and anecdotes about her own fashion successes and failures. These interactions can be personalized to the customer's preferences. For example, an agent might accommodate a customer's request to "Tell me more about your boyfriend." Or, the agent might proactively volunteer more "personal" information to a customer who asks a lot of personal questions. Moreover, these interactions can be customized with application-specific information, for example by giving the agent personal tastes or stories that relate to the products or services being offered in the application.**

Appellant contends that Hayes-Roth on describes customizable avatars generally. Nothing in these passages describes or suggests “animat[ing] the avatar with a voice and facial movements corresponding to content found in the database.” Contrary to the examiner’s characterization (“**paragraph 0500 discusses animation**”), claim 20 does not simply call for “animation,” but rather animation “with a voice and facial movements *corresponding to content found in the database.*” Nothing in these passages of Hayes-Roth suggests that voice and facial movements are in any way connected with content found in a database.

Accordingly, claim 20 is patentable over Hayes-Roth.

**(2) Claims 13, 26 and 42 are patentable over  
Hayes-Roth and Bennett.**

Appellant contends that claims 13, 26, and 42 are patentable for the same reasons that their respective independent claims are patentable, notwithstanding the examiner’s rejection over Hayes-Roth and Bennett, and so the claims are not argued separately here.

Applicant : Raymond Kurzweil  
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### **Conclusion**

Appellant submits that claims 1, 2, 5-16, 19-29 and 32-45 are patentable over the art of record. Therefore, the examiner erred in rejecting Appellant's claims and should be reversed.

Respectfully submitted,

Date: October 15, 2010

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### **Appendix of Claims**

1. A computer implemented method of conducting commerce, using one or more computers, the method comprising:
  - receiving transaction requests as text inputs;
  - using one or more computers executing natural language processing to analyze the text inputs to build a conversation based on the transaction requests;
  - conducting transactions based on the text inputs;
  - generating in the one or more computers voice-synthesized responses in accordance with the transactions through an avatar;
  - tracking the transactions by storing the transactions in a database;
  - generating additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database, including information regarding the transactions;
  - receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses; and
  - analyzing in the one or more computers the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information.
2. The method of claim 1 wherein tracking comprises:
  - searching a database to find related information associated with conducting the transactions.



Claim 3 is canceled.

Claim 4 is canceled.

5. The method of claim 1 wherein one of the transactions is a user request as to order status for an order being tracked in the database.

6. The method of claim 1 wherein generating the responses comprises:  
searching a database for content related to one of the transaction requests; and  
animating the avatar with a voice and facial movements corresponding to content found in the database.

7. The method of claim 6 wherein animating comprises generating verbal suggestions for conducting one of the transactions.

8. The method of claim 6 wherein animating comprises processing text input from the user with natural language processing techniques to develop and build conversations between a user and the avatar.

9. The method of claim 1 wherein receiving one of the text inputs is in response to a suggestion generated by the avatar.

10. The method of claim 1 wherein generating additional, voice-synthesized, follow-up responses includes an inquiry for financial information.

11. The method of claim 1 wherein one of the transactions involves a sales transaction.

12. The method of claim 1 wherein one of the transactions involves a help desk inquiry that involves customer support for a product or service.

13. The method of claim 1 wherein one of the transactions involves a report for customer support to report a malfunctioning product, system, or service.

14. The method of claim 1 wherein one of the transactions involves processing an inquiry.

15. A computer program product, residing on a computer readable medium, for conducting commerce comprises instructions for causing a computer to:

- receive transaction requests as text inputs;
- analyze the text inputs using natural language processing to build conversations with the user based on the transaction requests;
- conduct a transactions based on the text inputs;
- generate voice-synthesized responses in accordance with the transactions through an avatar;
- track the transactions by storing the transactions in a database;

generate additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database, including information regarding the transactions;

receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses; and

analyze the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information.

16. The computer program product of claim 15 wherein instructions to track comprise instructions to:

search a database for related information associated with conducting the transactions.

Claim 17 is canceled.

Claim 18 is canceled.

19. The computer program product of claim 15 wherein one of the transactions is a request as to order status for an order being tracked in the database.

20. The computer program product of claim 15 wherein instructions to generate the response comprise instructions to:

search a database for content related to one of the transaction requests; and

animate the avatar with a voice and facial movements corresponding to content found in the database.

21. The computer program product of claim 20 wherein instructions to animate comprise instructions to generate verbal suggestions for conducting one of the transactions.

22. The computer program product of claim 20 wherein instructions to animate comprise instructions to use natural language processing to develop and build conversations between a user and the avatar.

23. The computer program product of claim 15 wherein generating additional follow-up responses includes an inquiry for financial information.

24. The computer program product of claim 15 wherein one of the transactions involves a sales transaction.

25. The computer program product of claim 15 wherein one of the transactions involves a help desk inquiry that involves customer support for a product or service.

26. The computer program product of claim 15 wherein one of the transactions involves a report for customer support to report a malfunctioning product, system, or service.

27. The computer program product of claim 15 wherein one of the transactions involves processing an inquiry.

28. A system for conducting commerce, the system comprising:

a server computer for:

receiving transaction requests as text inputs;

analyzing the text inputs using natural language processing to build conversations based on the transaction requests;

conducting the transactions based on the text inputs;

generating voice-synthesized responses in accordance with the transactions through an avatar;

tracking the transactions by storing the transactions in a database;

generate additional, voice-synthesized, follow-up responses through the avatar in response to occurrences of the transactions, with the voice-synthesized, follow-up responses based on information stored in the database including information regarding the transactions;

receiving by the computer subsequent text inputs from the user in response to the voice-synthesized, follow-up responses; and

analyzing, statistically, the transactions, the subsequent text inputs and the voice-synthesized, follow-up responses about the transactions to produce market research information.

29. The system of claim 28 further comprising:

a client system for sending the text input to the server, with the client system executing a web browser program.

Claim 30 is canceled.

Claim 31 is canceled.

32. The computer program product of claim 15 wherein one of the text inputs is received in response to a suggestion generated by the avatar.

33. The system of claim 28 wherein tracking comprises:  
searching a database to find related information associated with conducting the transactions.

34. The system of claim 28 wherein one of the transactions is a user request as to order status for an order being tracked in the database.

35. The system of claim 28 wherein generating the responses comprises:  
searching a database for content related to one of the transaction requests; and  
animating the avatar with a voice and facial movements corresponding to content found in the database.

36. The system of claim 35 wherein animating comprises generating verbal suggestions for conducting one of the transactions.

37. The system of claim 35 wherein animating comprises processing text input from the user with natural language processing techniques to develop and build conversations between a user and the avatar.

38. The system of claim 28 wherein receiving one of the text inputs is in response to a suggestion generated by the avatar.

39. The system of claim 28 wherein generating additional, voice-synthesized, follow-up responses includes an inquiry for financial information.

40. The system of claim 28 wherein one of the transactions involves a sales transaction.

41. The system of claim 28 wherein one of the transactions involves a help desk inquiry that involves customer support for a product or service.

42. The system of claim 28 wherein one of the transactions involves a report for customer support to report a malfunctioning product, system, or service.

43. The system of claim 28 wherein one of the transactions involves processing an inquiry.

44. The method of claim 1 wherein the text inputs are received from a client system executing a web browser program.

45. The computer program product of claim 15 wherein instructions to receive transaction requests as text inputs comprise instructions to receive the text inputs from a client system executing a web browser program.



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## **Evidence Appendix**

NONE

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### **Related Proceedings Appendix**

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